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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,486	03/18/2005	Herbert Lifka	NL020885US	5058

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EXAMINER

ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,486	Applicant(s) LIFKA ET AL.	
	Examiner Sikha Roy	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment, filed on October 27, 2008 has been entered and acknowledged by the Examiner.

The new Fig. 2D has been entered and accordingly Drawing objection has been withdrawn.

New claims 24-28 have been entered.

Claims 1-15 and 22-28 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-13, 22-24, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,656,611 to Tai et al.

Regarding claim 1 Tai discloses (Figs. 2C, 3A-3D, 4A col. 7 lines 1-20, col. 8 lines 9-46) an electrical device comprising a se 102 carrying at least one component (108 or 308) comprising at least one electrode (second electrode 314), a first connecting line 205/305 electrically connected to the electrode , the first connecting line with electrode 214(314) bridging a second connecting line 304 by a crossover 310,

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wherein at least a portion of a perimeter of the crossover is bounded by an electrically insulating structure 306, insulating the crossover from at least one other crossover (please see Fig.4A).

Regarding claim 2 Tai discloses the electrically insulating structure 306 extends in a direction perpendicular to the substrate 302 and at least comprises one overhanging portion 408 projecting in a direction substantially parallel to the surface of the substrate.

Regarding claim 3 Tai discloses (Fig.4A) the crossover is surrounded by electrically insulating structure 306.

Regarding claim 4 Tai discloses (Figs. 3, 4) the electrical device comprises a plurality of additional first connecting lines 305, the additional first connecting lines having crossovers with second connecting lines 304, each crossover being bounded by a corresponding electrically insulating structure.

Regarding claim 5 Tai discloses the electrical device is an electroluminescent display device and the component is a display pixel.

Regarding claim 6 Tai discloses (Fig. 4B col. 9 lines 40-50) the display pixel comprising a first electrode 304, an electroluminescent material 412 and a second electrode 314, the second electrode being connected to the first connecting line 305.

Regarding claim 8 Tai discloses (col. 4 lines 30-34) the substrate comprises glass.

Regarding claim 9 Tai discloses (Figs. 2A-2C, 3A-3D col. 4 line 63 thru col. 5 lines 57) the method for manufacturing the electrical device of electroluminescent

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display comprising a crossover of at least one connecting line over a second connecting line the first connecting line connecting to the electrical device comprising forming first and second connecting lines 204,205 on the substrate, depositing an insulating layer (polysiloxane insulating bank structure 106) on the first and second connecting line in an area where the crossover is to be formed, creating an opening 108 in the insulating layer in a position where an electrical contact is to be provided between the first connecting line and a connection point, forming (col. 8 lines 1-35) an electrically insulating structure 310 peripherally surrounding at least a portion of the area where crossover is to be formed and depositing an electrically conductive layer (second electrode layer 214) on the insulating layer to connect the first connecting line to connecting point, which connecting point may be connected to second connecting line.

Regarding claim 10 Tai discloses the electrically insulating structure 306 extends in a direction perpendicular to the substrate 302 and at least comprises one overhanging portion 408 projecting in a direction substantially parallel to the surface of the substrate.

Regarding claim 11 Tai discloses (Fig.4A) the electrically insulating structure 306 surrounds the crossover.

Regarding claim 12 Tai discloses (figs. 3A-3D,4A-4B) the electrical device is an electroluminescent display device having at least one display pixel comprising a first electrode 304, an electroluminescent material 412 and a second electrode 314, said method further comprising forming said first electrode 304 simultaneously with first connecting line and second connecting line, forming an electroluminescent layer on the

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first electrode, at least at the position where the at least one display pixel is to be formed and forming the second electrode simultaneously with electrically conductive layer, at least at the positions where the display pixel is to be formed, so as to connect said first or second electrode with said first connecting line.

Regarding claim 13 Tai discloses (col. 9 lines 40-51) electroluminescent layer is formed after forming the insulating structure.

Regarding claim 22 Tai discloses the crossover is completely surrounded by the insulating structure.

Regarding claim 23 Applicant claims the intended use of the electrical device and does not differentiate the claimed device from prior art electrical device structurally. Thus the Examiner asserts that the electrical device of Tai is capable of being used as a test structure for testing display panel.

Regarding claim 24 Tai discloses (col. 5 lines 1-7) the first and second connecting lines 204,205 are formed simultaneously on the substrate.

Regarding claim 26 Tai discloses an electrical device including an electroluminescent display comprising a plurality of electrodes on a substrate, the plurality of electrodes corresponding to a plurality of components, a plurality of first connecting lines 305 electrically connected to the plurality of electrodes 314, a plurality of second connecting lines 304, each of the plurality of first connecting lines being electrically connected to one of the plurality of second connecting lines and an insulating layer 306 covering at least a portion of each of the plurality of first connecting lines and

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the plurality of second connecting lines, wherein at least one first connecting line of the plurality of first connecting lines connects with one second line of the plurality of second connecting lines through an opening 308 in the insulating layer by bridging at least one other second connecting line of the plurality of second connecting lines at a crossover, the crossover being insulated from the at least one other second connecting line by the insulating layer and from at least one other first connecting line by the insulating structure surrounding the crossover 310 and the opening.

Regarding claim 27 Tai discloses the plurality of components comprise plurality of pixels.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,656,611 to Tai et al.

Regarding claim 25 Tai discloses the claimed method except for the first and second connecting lines formed successively. It would have been obvious matter of design choice to form the first and second connecting lines successively since applicant has not disclosed that this method solves any stated problem or is for any particular

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purpose and it appears that the invention would perform equally well with the first and second connecting lines formed simultaneously as disclosed by Tai.

Claims 7, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,656,611 to Tai et al., and further in view of USPN 6,940,214 to Komiya et al.

Regarding claim 7 Tai does not disclose the device being an integrated circuit.

Komiya in same field of endeavor discloses (claim 1) an electroluminescent display device having driving circuit region integrated on the substrate, the driving circuit region having thin film transistors for driving the device.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the electrical device of Tai include integrated circuit of thin film transistors as disclosed by Komiya for driving the device.

Regarding claim 14 Tai as modified by Komiya discloses the electrical device is an integrated circuit wherein the first connecting line is connected to the integrated circuit for driving the pixels in the device.

Regarding claim 15 Tai and Komiya disclose the integrated circuit is made on a glass substrate.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,656,611 to Tai et al., and further in view of USPN 6,798,145 to Ishizuka.

Regarding claim 28 Tai is silent about the plurality of second connecting lines providing corresponding plurality of color signals for sub-pixels connected to the plurality of first connecting lines.

Ishizuka in same field if endeavor discloses (Figs. 1,2) plurality of second connecting lines providing plurality of color signals R,G ad B to the electroluminescent sub-pixels and thus providing an appropriate image display with multicolor design.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the electrical device of Tai with second connecting lines providing color signals for sub-pixels connected to plurality of first connecting lines as suggested by Ishizuka for providing an appropriate image display with multicolor design.

Response to Arguments

Applicant's arguments with respect to claims 1,9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikha Roy/

Primary Examiner, Art Unit 2879